

Fig. 1 is a circuit diagram of a three-phase inverter. It consists of three legs, labeled 1, 2, and 3. Each leg contains two IGBTs (S1, S2, S3, S4, S5, S6) and two diodes (13, 14, 15, 16, 17, 18, 19, 20). The IGBTs are connected in a half-bridge configuration. The diodes are connected in a freewheeling configuration. The legs are connected to a common neutral point (5). The circuit is connected to a DC source (9) and a load (30). The DC source is connected to the positive rail (7) and the negative rail (8). The load is connected to the positive rail (7) and the common neutral point (5). The circuit is also connected to a filter capacitor (10) and a filter inductor (21). The filter capacitor is connected between the positive rail (7) and the common neutral point (5). The filter inductor is connected between the positive rail (7) and the load (30). The circuit is also connected to a zero-sequence voltage source (Z) and a zero-sequence current source (9). The zero-sequence voltage source is connected to the positive rail (7) and the common neutral point (5). The zero-sequence current source is connected to the positive rail (7) and the common neutral point (5).

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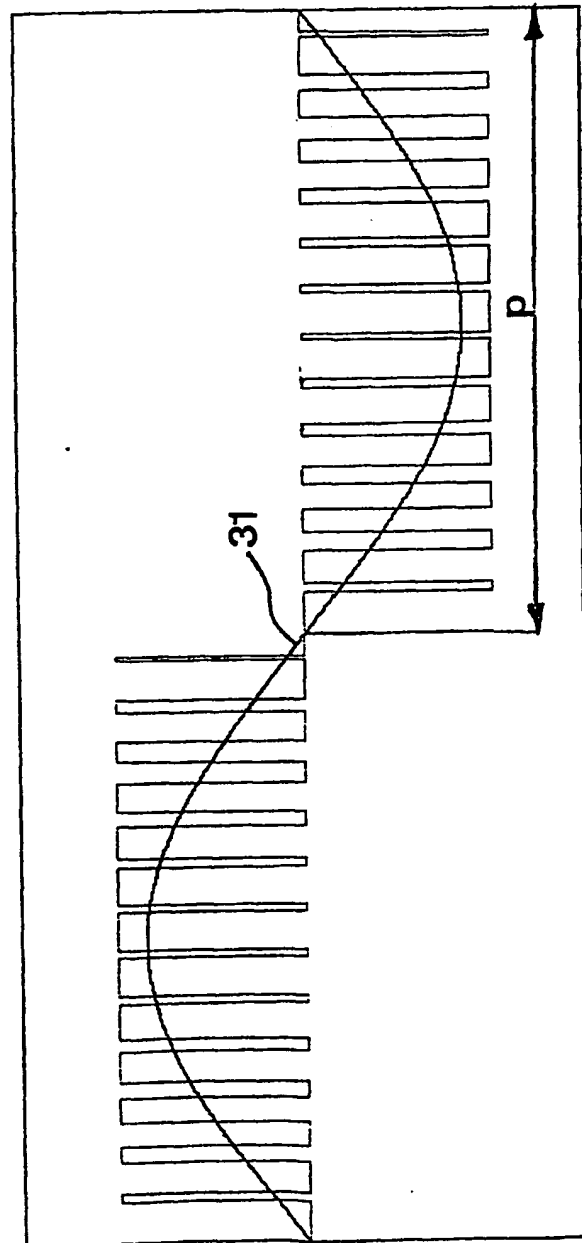


Fig 2

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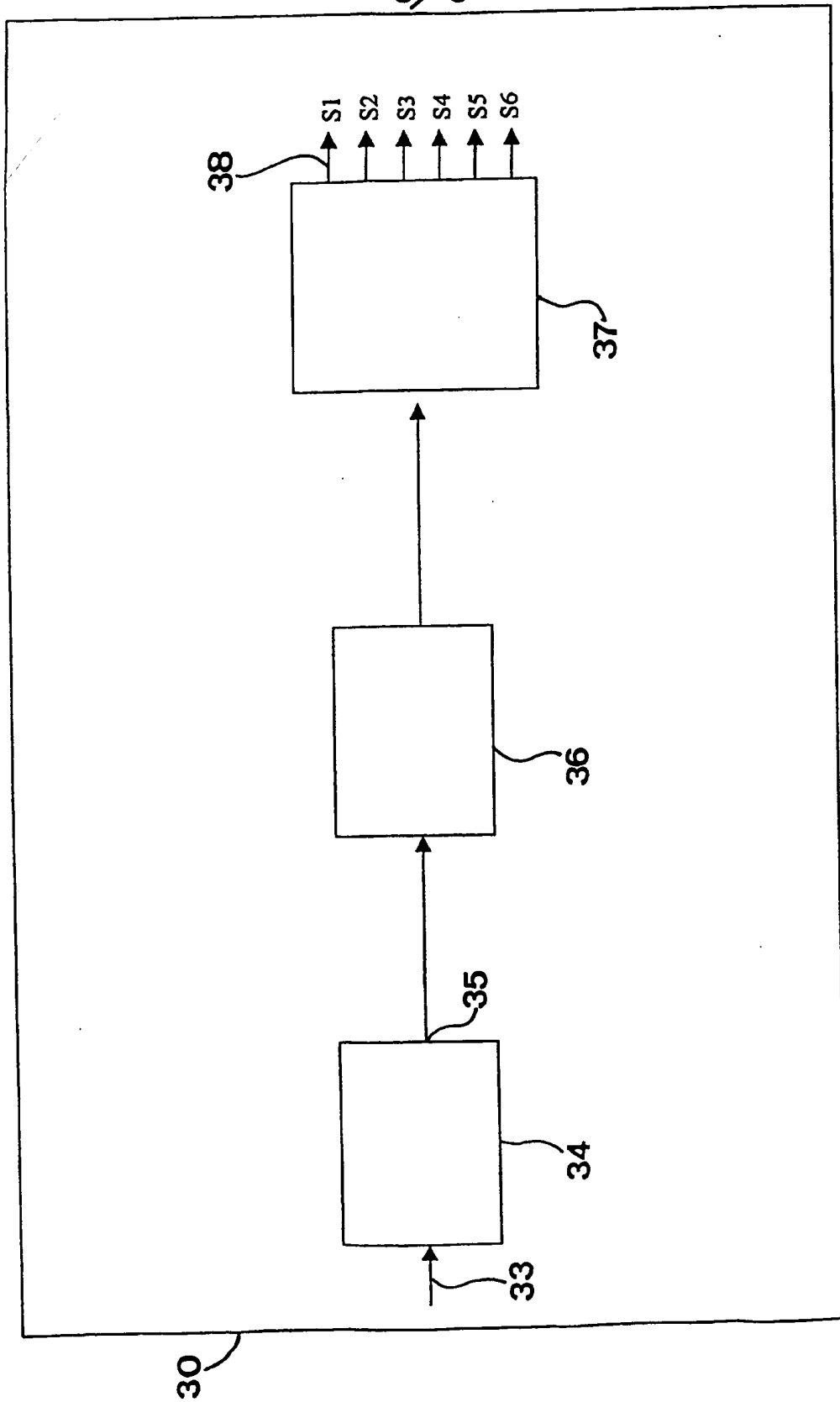


Fig 3